

**THE CLAIMED INVENTION IS:**

1. A method for capturing call processing failures in a telecommunication system occurring at a telecommunication switch control processor as the failures occur, comprising:

5 establishing a communication link between a computing system and the

telecommunication system;

the computing system continually capturing call processing failure data occurring at the telecommunication switch control processor; and

storing the captured call processing failure data to the storage device.

10 2. The method according to claim 1, wherein capturing the call processing failure data occurring at the telecommunication switch control processor occurs in real-time.

15 3. The method according to claim 1, further comprising providing the call processing failure data to an output device coupled to the computing system.

4. The method according to claim 3, wherein providing the captured data to an output device includes providing the captured data to any output device selected from the group consisting of a monitor, a printer, a modem, a computer, a plotter, a logic circuit adapted for sending electronic mail and a facsimile device.

20 5. The method according to claim 3, wherein the captured data are provided to the output device in response to user-selected criteria.

25 6. The method according to claim 5, wherein the captured data are provided to the output device formatted according to the user-selected criteria.

7. The method according to claim 1, wherein establishing a communication link includes establishing a TCP/IP communication link.

8. The method according to claim 1, further comprising filtering the incoming call 5 processing failure data in accordance with a predetermined parameter.

9. The method according to claim 1, wherein establishing the communication link is performed by a first set of logic instructions executed by the computing system and continually receiving the captured data is performed by a second set of logic instructions executed by the 10 computing system.

10. The method according to claim 9, wherein the first set of logic instructions are executed by the second set of logic instructions.

11. The method according to claim 1, further comprising monitoring the execution of 15 one or more sets of logic instructions being executed by the computing system by a predetermined set of logic instructions.

12. The method according to claim 11, wherein monitoring the execution of one or 20 more sets of logic instructions includes determining whether call processing failures are being captured and received continuously.

13. The method according to claim 1, further comprising analyzing the captured call 25 processing failure data and determining if a predetermined condition is met.

14. The method according to claim 13, further comprising broadcasting a paging signal if the predetermined condition is met.

15. The method according to claim 1, further comprising:  
5 maintaining the call processing failure data; and  
logging administration data associated with the captured call processing data to the  
storage device.

16. A system for capturing call processing failures in a telecommunication system  
occurring at a telecommunication switch control processor as the failures occur, comprising:  
10 a computing system adapted for communicating with the telecommunication system, the  
computing system including one or more computers having one or more processors for executing  
logic instructions;  
a memory associated with the computing system for storing the instructions;  
a storage device adapted for communicating with the computing system for storing data;  
and  
15 a communication device associated with the computing system for establishing a  
communication link between the computing system and the telecommunication system;  
wherein the logic instructions are executed by the computing system and cause the one or  
more processors to:  
20 establish a communication link between the computing system and the  
telecommunication system;  
continually capture call processing failure data occurring at the  
telecommunication switch control processor; and  
store the captured call processing failure data to the storage device.

25 17. The system according to claim 16, wherein capturing the call processing failure  
data occurring at the telecommunication switch control processor occurs in real-time.

18. The system according to claim 16, further comprising a server adapted for communicating with the computing system, the server having a second memory for storing logic instructions to be executed by the server and a second storage device for storing call processing data associated with the telecommunication switch control processor.

5

19. The system according to claim 18, wherein the server includes a structured query language server.

20. The system according to claim 16, wherein the computing system is configured to capture the call processing failure data occurring at the telecommunication switch control processor in real-time.

21. The system according to claim 16, further comprising an output device adapted to be coupled to the computing system for receiving the call processing failure data.

22. The system according to claim 21, wherein the output device is selected from the group consisting of a monitor, a printer, a modem, a computer, a plotter, a logic circuit adapted for sending electronic mail and a facsimile device.

23. The system according to claim 21, further comprising means for receiving user-selected criteria and means for providing the captured data to the output device in response to the user-selected criteria.

24. The system according to claim 23, further comprising means for determining the user-selected criteria and providing the captured data to the output device formatted according to the user-selected criteria.

25. The system according to claim 16, wherein the communication device is adapted for establishing a TCP/IP communication link.

26. The system according to claim 16, further comprising filter means for processing 5 the incoming call processing failure data in accordance with a predetermined parameter.

27. The system according to claim 16, wherein establishing the communication link is performed by a first set of logic instructions executed by the computing system and continually receiving the captured data is performed by a second set of logic instructions executed by the 10 computing system.

28. The system according to claim 26, wherein the first set of logic instructions monitors the execution of the second set of logic instructions.

15 29. The system according to claim 16, wherein a logic portion for monitoring the execution of one or more sets of logic instructions is executed by the computing system by a predetermined set of logic instructions.

20 30. The system according to claim 29, wherein the logic portion for monitoring the execution of one or more sets of logic instructions includes a second logic portion for determining whether call processing failures are being captured and received continuously.

25 31. The system according to claim 16, further comprising a logic portion for analyzing the captured call processing failure data and determining if a predetermined condition is met.

32. The system according to claim 31, further comprising a logic portion for broadcasting a paging signal if the predetermined condition is met.

33. The system according to claim 16, further comprising:

5 a first logic portion for maintaining the call processing failure data; and

a second logic portion for logging administration data associated with the captured call processing data to the storage device.

34. The system according to claim 16, wherein the logic instructions executed by the

10 computing system cause the one or more processors to filter the captured data.

35. An apparatus for capturing call processing failures in a telecommunication system occurring at a telecommunication switch control processor as the failures occur, comprising:

15 a computer adapted for communicating with the telecommunication system, the computer having one or more processors to execute logic instructions associated with one or more computer software programs and a memory for storing the logic instructions;

a first adapter coupled to the computer for interfacing the computer to a server;

20 a second adapter coupled to the computer for continually capturing call processing failure data at the telecommunication switch control processor; and

a communication device coupled to the computer for establishing a communication link

between the computer and the telecommunication system.

36. The apparatus according to claim 35, wherein capturing the call processing failure data occurring at the telecommunication switch control processor occurs in real-time.

25 37. The apparatus according to claim 35, further comprising a storage device coupled to the computer.

38. The apparatus according to claim 37, wherein the logic instructions cause the one or more processors to:

establish a communication link with the telecommunication system;

5 continually capture call processing failure data at the telecommunication switch control processor; and

store the call processing failure data in a storage device.

39. The apparatus according to claim 35, wherein the communication device is

10 adapted for establishing a TCP/IP communication link between the computer and the telecommunication system.

40. The apparatus according to claim 35, further comprising an output device coupled to the computer.

15 41. The apparatus according to claim 40, wherein the output device is selected from the group consisting of a monitor, a printer, a modem, a computer, a plotter, a logic circuit adapted for sending electronic mail and a facsimile device.

42. A system for capturing call processing failures in a telecommunication system occurring at a telecommunication switch control processor as the failures occur, comprising:

computing system means adapted for communicating with the telecommunication system, the computing system means including one or more computer means having one or more computer processing means for executing logic instructions;

5 memory means associated with the computing system means for storing the instructions; means for storing data adapted for communicating with the computing system means; and communication means associated with the computing system means for establishing a communication link between the computing system means and the telecommunication system;

10 wherein the logic instructions are executed by the computing system means and cause the one or more computer processing means to:

establish a communication link between the computing system means and the telecommunication system;

15 continually capture call processing failure data occurring at the telecommunication switch control processor; and

store the captured call processing failure data in the storage means.

43. The system according to claim 42, wherein capturing the call processing failure data occurring at the telecommunication switch control processor occurs in real-time.

20

44. The system according to claim 42, further comprising server means in communication with the computer system means.

25

45. The system according to claim 42, further comprising output means coupled to the computer system means.

46. A computer readable medium having a set of computer instructions encoded thereon, comprising:

the set of computer instructions being operative with a computer adapted for communicating with a telecommunication system and adapted for communicating with a storage device, the set of computer instructions cause the computer to:

5 establish a communication link between the computer and the telecommunication system; continually capture call processing failure data at a telecommunication switch control processor; and

store the data in the storage device.

10

47. The computer readable medium according to claim 46, further comprising computer instructions stored thereon that cause the computer to continually capture the call processing failure data in real-time.

15

48. The computer readable medium according to claim 46, further comprising computer instructions stored thereon that cause the computer to broadcast a paging signal in accordance with a predetermined set of conditions.

20

49. The computer readable medium according to claim 46, further comprising computer instructions stored thereon that cause the computer to maintain and log administrative data to the storage device.

25

50. The computer readable medium according to claim 46, further comprising a set of computer instructions stored thereon that cause the computer to establish a TCP/IP communication link between the computer and the telecommunication system.